

REMARKS/ARGUMENTS

Claims 1-36 are pending in the present application.

This Amendment is in response to the Office Action mailed December 21, 2007. In the Office Action, the Examiner rejected claims 21-30 under 35 U.S.C. §101; and claims 1, 5, 8-11, 15, 18-21, 25, 28-31, 35, and 36 under 35 U.S.C. §103(a). In addition, the Examiner indicated allowable subject matter for claims 2-4, 6, 7, 12-14, 16, 17, 32-34. Applicant has amended claims 8, 21, and 28. Reconsideration in light of the amendments and remarks made herein is respectfully requested.

Claim Objections

The Examiner alleges that there is insufficient antecedent basis for the limitation “the receiver” in claim 8 (Office Action, page 3). Applicants have amended claim 8 to correct minor informalities.

Rejection Under 35 U.S.C. § 101

In the Office Action, the Examiner rejected claims 21-30 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant respectfully disagrees. However, in the interest of expediting the prosecution of the application, Applicant has amended the claims 21 and 28 to recite a “storage medium.”

Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §101 be withdrawn.

Rejection Under 35 U.S.C. § 103

In the Office Action, the Examiner rejected claims 1, 5, 8-11, 15, 18-21, 25, 28-31, 35, and 36 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,556,624 issued to Orchard (“Orchard”) in view of U.S. Patent No. 6,952,450 issued to Cohen (“Cohen”). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of obviousness.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the

knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *MPEP §2143, p. 2100-126 to 2100-130 (8th Ed., Rev. 5, August 2006)*. Applicant respectfully submits that there is no suggestion or motivation to combine their teachings, and thus no *prima facie* case of obviousness has been established.

Furthermore, the Supreme Court in *Graham v. John Deere*, 383 U.S. 1, 148 USPQ 459 (1966), stated: “Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined.” MPEP 2141. In *KSR International Co. vs. Teleflex, Inc.*, 127 S.Ct. 1727 (2007) (Kennedy, J.), the Court explained that “[o]ften, it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” The Court further required that an explicit analysis for this reason must be made. “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR* 127 S.Ct. at 1741, quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006). In the instant case, Applicant respectfully submits that there are significant differences between the cited references and the claimed invention and there is no apparent reason to combine the known elements in the manner as claimed, and thus no *prima facie* case of obviousness has been established.

Orchard discloses a method and apparatus for accomplishing multiple description coding for video. A set of frame buffers 160 stores previously reconstructed frames from the P-mode MDC 130 and provides macroblocks from the previously reconstructed frames back to the P-mode MDC 130 (Orchard, col. 4. lines 2-7). The mode selector 110 controls the switching of switch 112 between channel 113 for the I-mode MDC 120 and channel 114 for the P-mode MDC 130 (Orchard, col. 3, lines 58-63). The redundancy allocation unit 140 communicates signals to

the mode selector 110 to control the switching (Orchard, col. 3, lines 58-63). The EMDC decoder 360 is a part of the MDCPE decoder (Orchard, col. 2, lines 42-43; col. 8, lines 31-43; Figure 3B). DEC1 produces \tilde{E}_1 from inputs ΔC_n and G_1 (Orchard, col. 6, lines 27-30; Figure 3B).

Cohen discloses an unequal error protection of video based on motion vector characteristics. Motion vectors are analyzed in an analysis software tool 120 analyzing motion vectors (Cohen, col. 3, lines 7-13). The receiver feeds back data indicating that motion is not being reproduced correctly to the analysis software tool 120 (Cohen, col. 4, lines 9-11).

Orchard and Cohen, taken alone or in any combination, do not disclose or render obvious, at least one of: (1) a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; (2) a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status, the transmit frame being transmitted to a receiver; (3) an analyzer coupled to the selector to provide the transmission status based on feedback information provided by the receiver, as recited in claims 1, 11, 21, and 31; (4) an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content; (5) a feedback generator coupled to the I/O module to provide feedback information regarding transmission of the stream to the transmitter; and (6) a decoder coupled to the feedback generator and the I/O module to decode the stream, as recited in claims 8, 18, 28, and 35.

1. Claims 1, 11, 21, and 31

First, Orchard merely discloses a set of frame buffers 160 for storing previously reconstructed frames from the P-mode MDC 130 and providing macroblocks from the previously reconstructed frames back to the P-mode MDC 130 (Orchard, col. 4. lines 2-7), not a buffer to store at least a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding, the default and restart streams corresponding to a media content, as recited in the claims. In the P-mode MDC 130, the macroblock is predicted (Orchard, col. 3, lines 48-50). Since the set of frame buffers 160 only stores reconstructed frames from the P-

mode and predicted macroblocks, it cannot be the buffer as recited since it does not store a default stream coded by MD coding and a restart stream coded by predictive coding.

Second, Orchard merely discloses the mode selector 110 controlling the switching of switch 112 between channel 113 for the I-mode MDC 120 and channel 114 for the P-mode MDC 130 (Orchard, col. 3, lines 58-63), not a selector coupled to the buffer to select a transmit frame from the default and restart streams according to a transmission status. Controlling the switching refers to controlling the connection of the switch 112 to the two channels 113 and 114. The two channels 113 and 114 act as outputs. Therefore, they cannot provide the default and restart streams to the selector. Furthermore, channels 113 and 114 cannot be the default stream and the restart stream, respectively, since they are not both stored in the buffer, as argued above. Furthermore, Orchard merely discloses the redundancy allocation unit 140 communicates signals to the mode selector 110 to control the switching (Orchard, col. 3, lines 58-63), not selecting according to a transmission status. The control of the switching is not based on a transmission condition. Moreover, Orchard merely discloses the macroblocks being coded into two descriptions, not transmit frame being transmitted to a receiver. In the I-mode, the color values of the macroblock are coded directly into two descriptions (Orchard, col. 3, lines 41-43). In the P-mode, the macroblock is first predicted and two descriptions 132 and 134 are produced (Orchard, col. 3, lines 47-49). None of these corresponds to the transmit frame being transmitted to a receiver.

Furthermore, Cohen merely discloses motion vectors being analyzed in an analysis software tool 120 analyzing motion vectors (Cohen, col. 3, lines 7-13), not an analyzer to provide the transmission status based on feedback information provided by the receiver. The portions which are labeled “important” are portions of certain frames that are most likely to be lost (Cohen, col. 3, lines 7-13). In contrast, the selector uses the transmission status to select a transmit frame from the default and restart streams and the transmission status is based on feedback information provided by the receiver. Thus, since the label “important” does not affect the selection of a transmit frame and is not based on feedback information from the receiver, it cannot be the transmission status.

2. Claims 8, 18, 28, and 35

First, Orchard merely discloses the EMDC decoder 360 as being a part of the MDCPE decoder (Orchard, col. 2, lines 42-43; col. 8, lines 31-43; Figure 3B), not an input/output (I/O) module to receive a stream having a frame from a transmitter over a transmission path, the frame being selected from one of a default stream coded by a multiple description (MD) coding and a restart stream coded by a predictive coding. The MDCPE decoder 250 is only used for MDC in P-mode (Orchard, col. 2, lines 36-37; col. 5, lines 28-47). As discussed above, in P-mode, the macroblock is predicted. Thus, since the MDCPE decoder 250 cannot receive frames from a default stream coded by MD coding, the EMDC decoder 360 cannot be the I/O module.

Second, Orchard merely disclose DEC1 producing \tilde{E}_1 from inputs ΔC_n and G_1 (Orchard, col. 6, lines 27-30; Figure 3B), not a decoder to decode the stream. ΔC_n is a pre-run length coded coefficient and G_1 is the enhancement stream produced by ENC 1 320 (Orchard, col. 5, lines 60-65). Accordingly, neither of them is the stream as received by the I/O module. Furthermore, since the EMDC decoder 360 cannot be the I/O module, the DEC1 cannot be the decoder.

Third, Cohen merely discloses the receiver feeding back data indicating that motion is not being reproduced correctly to the analysis software tool 120 (Cohen, col. 4, lines 9-11), not a feedback generator to provide feedback information regarding transmission of the stream to the transmitter. Since the analysis software tool 120 receives the feedback from the receiver rather than provides the feedback to the transmitter 150, the analysis software tool 120 cannot be the feedback generator. Receiving is the opposite of providing. Furthermore, the feedback data from the receiver merely indicates whether the motion is being reproduced correctly. It does not provide information regarding transmission of the stream.

The Examiner failed to establish a *prima facie* case of obviousness and failed to show there is teaching, suggestion, or motivation to combine the references. When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) The claimed invention must be considered as a whole; (B) The references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) The references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) Reasonable expectation of success is the standard with which obviousness is determined. Hodosh v. Block Drug Col, Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir.

1986). "When determining the patentability of a claimed invention which combined two known elements, 'the question is whether there is something in the prior art as a whole suggest the desirability, and thus the obviousness, of making the combination.'" In re Beattie, 974 F.2d 1309, 1312 (Fed. Cir. 1992), 24 USPQ2d 1040; Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ (BNA) 481, 488 (Fed. Cir. 1984). To defeat patentability based on obviousness, the suggestion to make the new product having the claimed characteristics must come from the prior art, not from the hindsight knowledge of the invention. Interconnect Planning Corp. v. Feil, 744 F.2d 1132, 1143, 227 USPQ (BNA) 543, 551 (Fed. Cir. 1985). To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the Examiner to show a motivation to combine the references that create the case of obviousness. In other words, the Examiner must show reasons that a skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the prior elements from the cited prior references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350 (Fed. Cir. 1996), 47 USPQ 2d (BNA) 1453. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or implicitly suggest the claimed invention or the Examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." Ex parte Clapp, 227 USPQ 972, 973. (Bd.Pat.App.&Inter. 1985). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Furthermore, although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so." In re Mills 916 F.2d at 682, 16 USPQ2d at 1432; In re Fritch, 972 F.2d 1260 (Fed. Cir. 1992), 23 USPQ2d 1780.

Moreover, the Examiner failed to establish the factual inquires in the three-pronged test as required by the *Graham* factual inquires. There are significant differences between the cited references and the claimed invention as discussed above. Furthermore, the Examiner has not made an explicit analysis on the apparent reason to combine the known elements in the fashion

in the claimed invention. Accordingly, there is no apparent reason to combine the teachings of Orchard and Cohen.

In the present invention, the cited references do not expressly or implicitly disclose any of the above elements. In addition, the Examiner failed to present a convincing line of reasoning as to why a combination of Orchard and Cohen is an obvious application of multimedia content delivery using pre-stored multiple description coded video with restart, or an explicit analysis on the apparent reason to combine Orchard and Cohen in the manner as claimed.

Therefore, Applicant believes that independent claims 1, 8, 11, 21, 28, 31, and 35 and their respective dependent claims are distinguishable over the cited prior art references. Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §103(a) be withdrawn.

Allowable Subject Matter

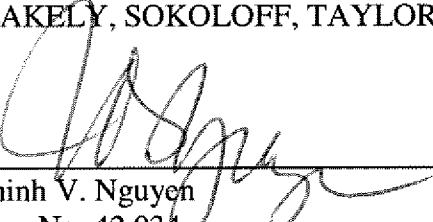
Applicant notes with appreciation the Examiner's indication of allowable subject matter. The Examiner objects to claims 2-4, 6, 7, 12-14, 16, 17, 32-34 as being dependent on a rejected base claim, but indicates that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and claims 22-24, 26, and 27 if rewritten in independent form including all of the limitations of the base claim and corrections made to overcome any objections and rejections 35 U.S.C. §101. However, in light of the above amendments and remarks, Applicant respectfully requests that independent claims 1, 8, 11, 18, 21, 28, 31, and 35 and all claims that depend therefrom be allowed.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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